Fig. 1

RSVP Messages and Parameters

TSPEC, Traffic characteristics of the flow, i.e. upper and lower bounds of bandwidth, delay and jitter The token-bucket parameters:

- p = peak rate of flow (bytes/s)
- b = bucket depth (bytes)
- r = token bucket rate (bytes/s)
- m = minimum policed unit (bytes)
- M = maximum datagram size (bytes)

ADSPEC, Characteristics of the end-to-end communication path Updated by RSVP routers.

Default General Parameters

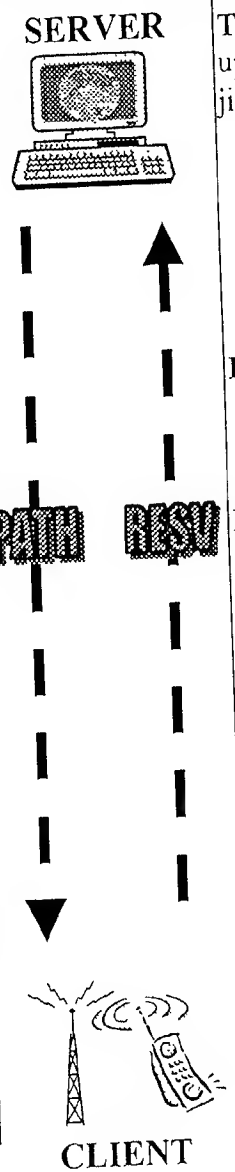
- **Min. Path latency** (sum of link latencies)
- **Path bandwidth** (min.of link bandwidth)
- Global break bit (set by non-RSVP routers)
- Integrated services hop count (incr. by each RSVP router along the path)
- PathMTU (path max. transmission unit)

Guaranteed Service (GS) Fragment (Opt.)

- Ctot, Dtot, Csum, Dsum
- GS break bit (set by non GS support RSVP routers)
- GS General Parameters (override default)

Controlled-Load Service (CLS) Fragment (Opt.)

- CLS break bit (set by non CLS support RSVP routers)
- CLS General Parameters (override def.)



TSPEC, Traffic characteristics of the flow, i.e. upper and lower bounds of bandwidth, delay and jitter. The token-bucket parameters:

- p = peak rate of flow (bytes/s)
- b = bucket depth (bytes)
- r = token bucket rate (bytes/s)
- m = minimum policed unit (bytes)
- M = maximum datagram size (bytes)

RSPEC, Reservation characteristics of the flow.

- R = bandwidth (bytes/s)
- S = slack term (ms)

Reservation Style. This is one of the following:

- Fixed Filter (FF)
- Wildcard Filter (WF)
- Shared Explicit (SE)

IP Multicast

Fig.2

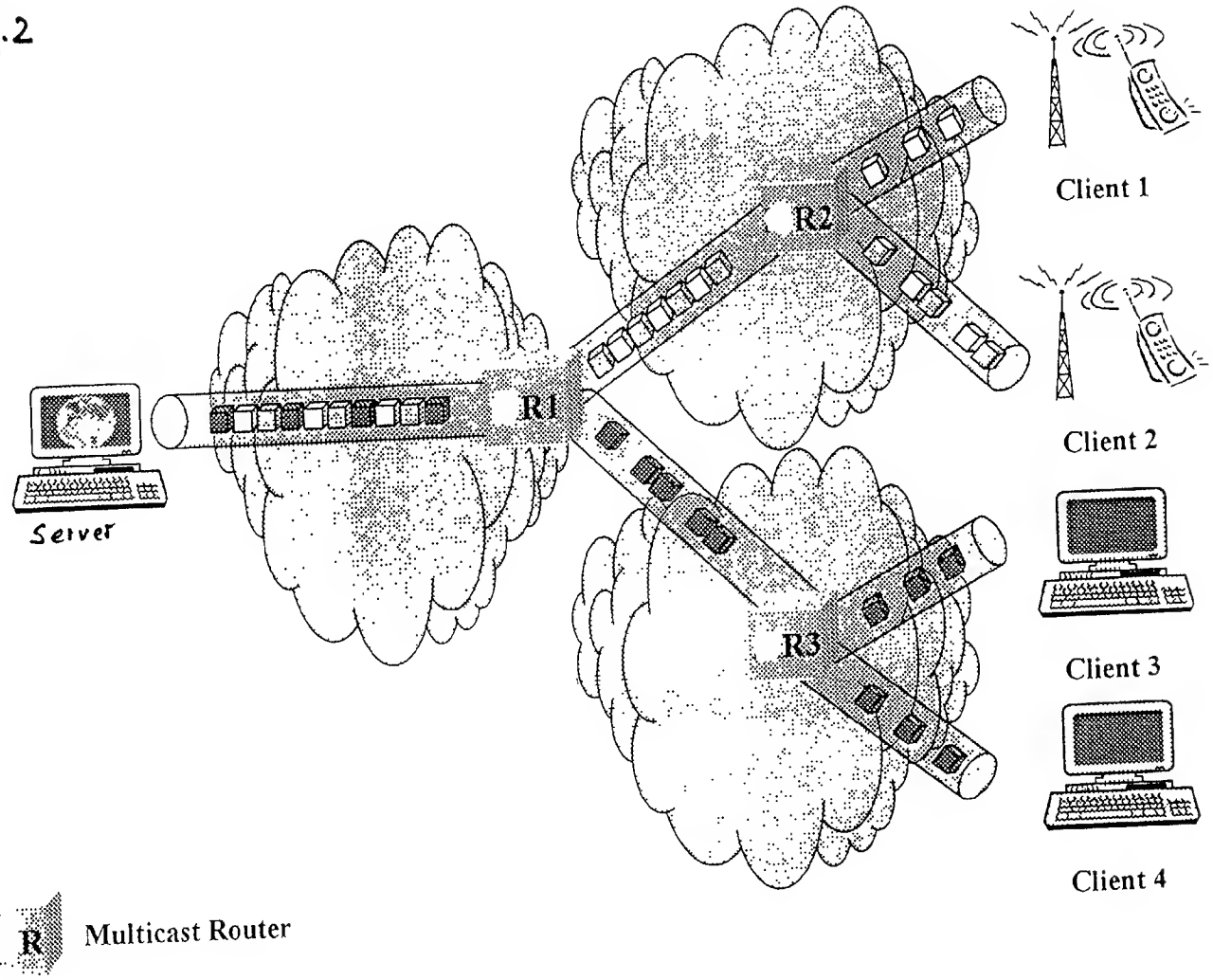
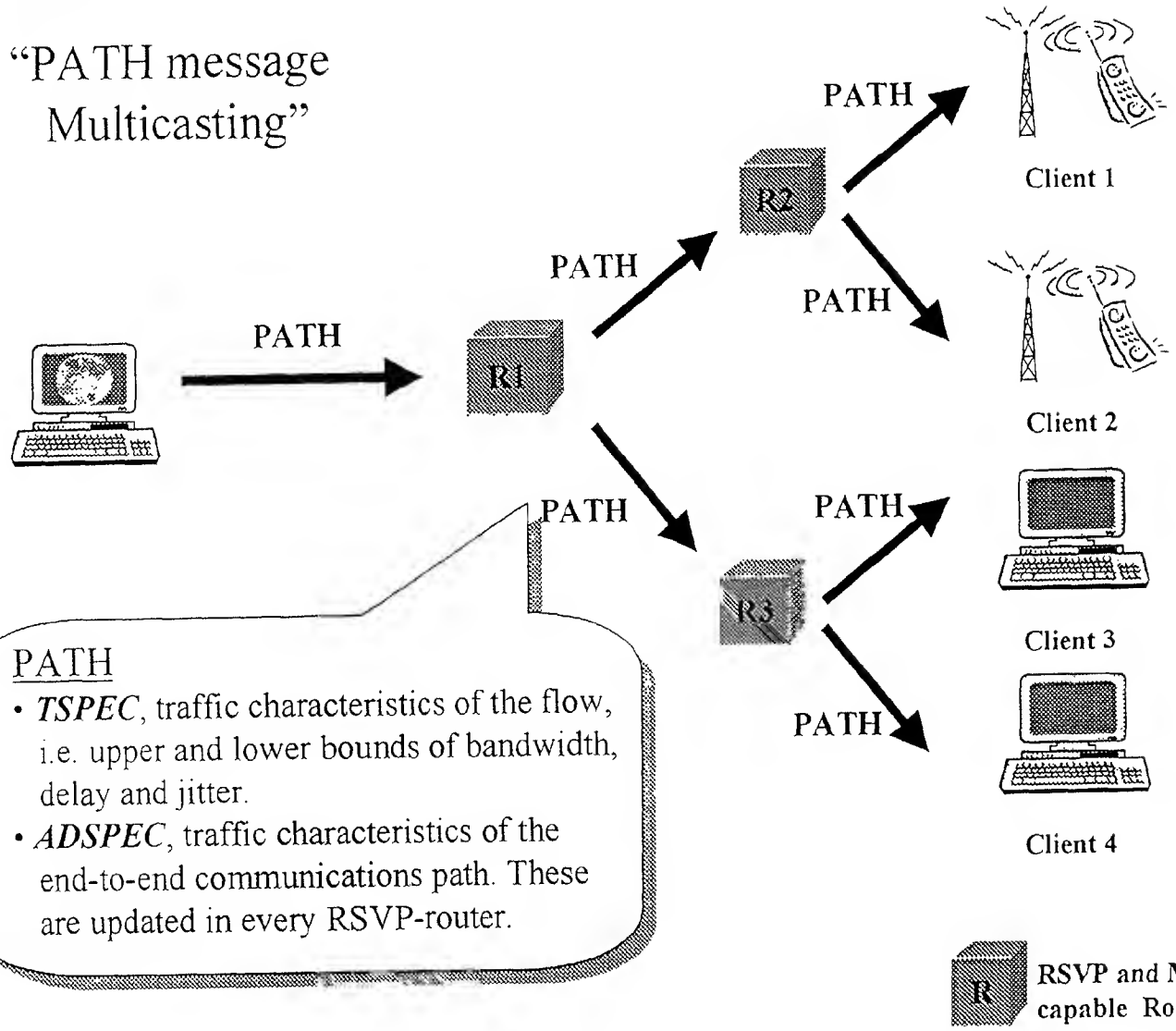


Fig.3

RSVP & Multicasting

"PATH message Multicasting"



PATH

- ***TSPEC***, traffic characteristics of the flow, i.e. upper and lower bounds of bandwidth, delay and jitter.
- ***ADSPEC***, traffic characteristics of the end-to-end communications path. These are updated in every RSVP-router.

Fig 4

RSVP & Multicasting

"RESV message inverse Multicasting"

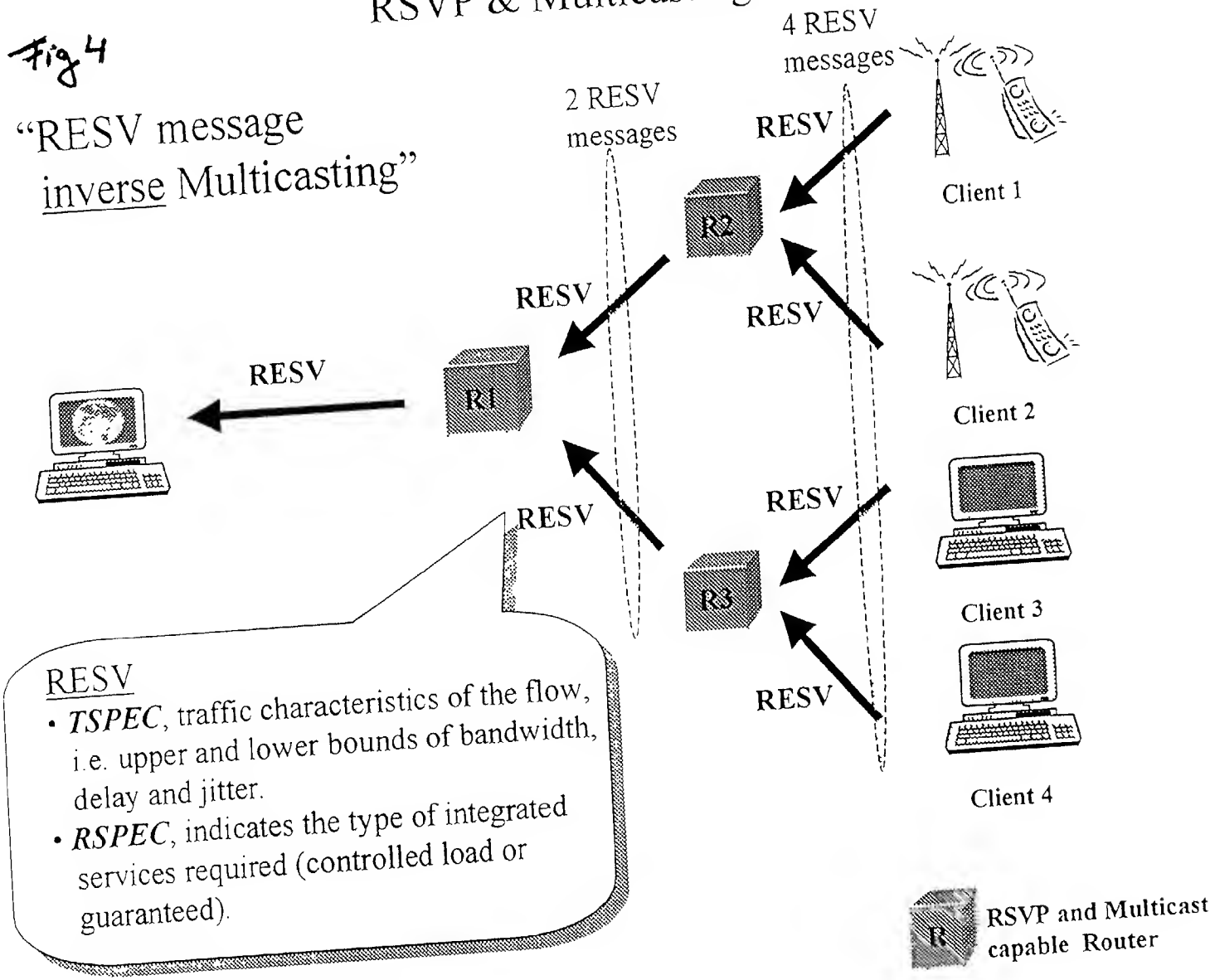


Fig. 5

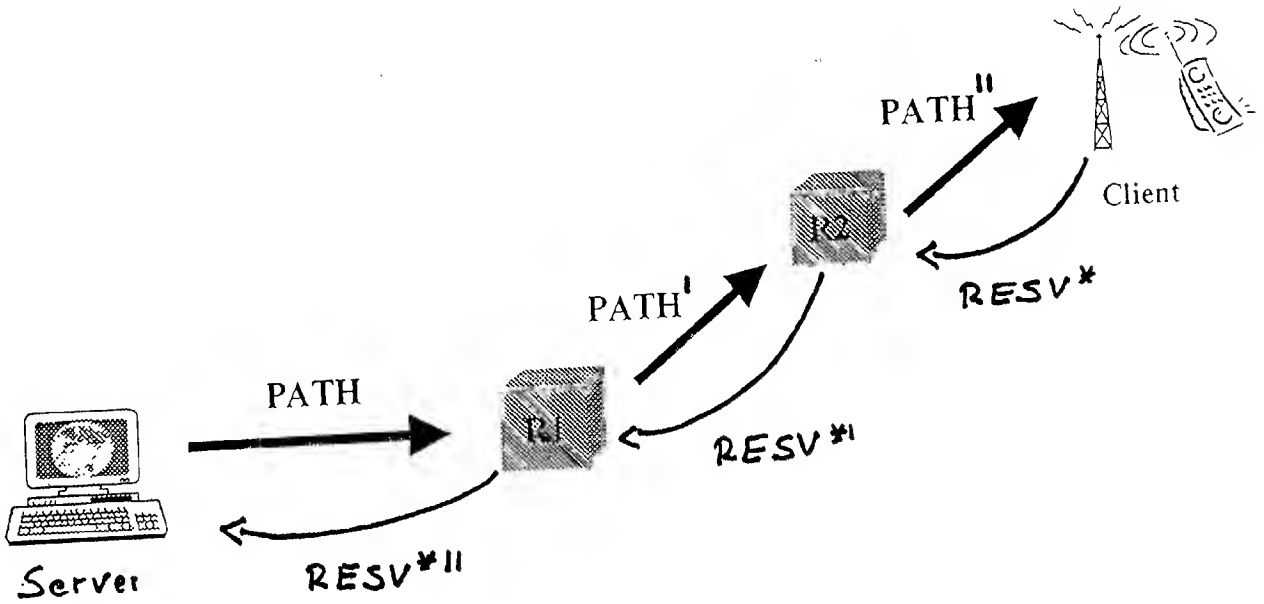


Fig. 6

RSVP & Multicasting

"RESV* message
inverse Multicasting"

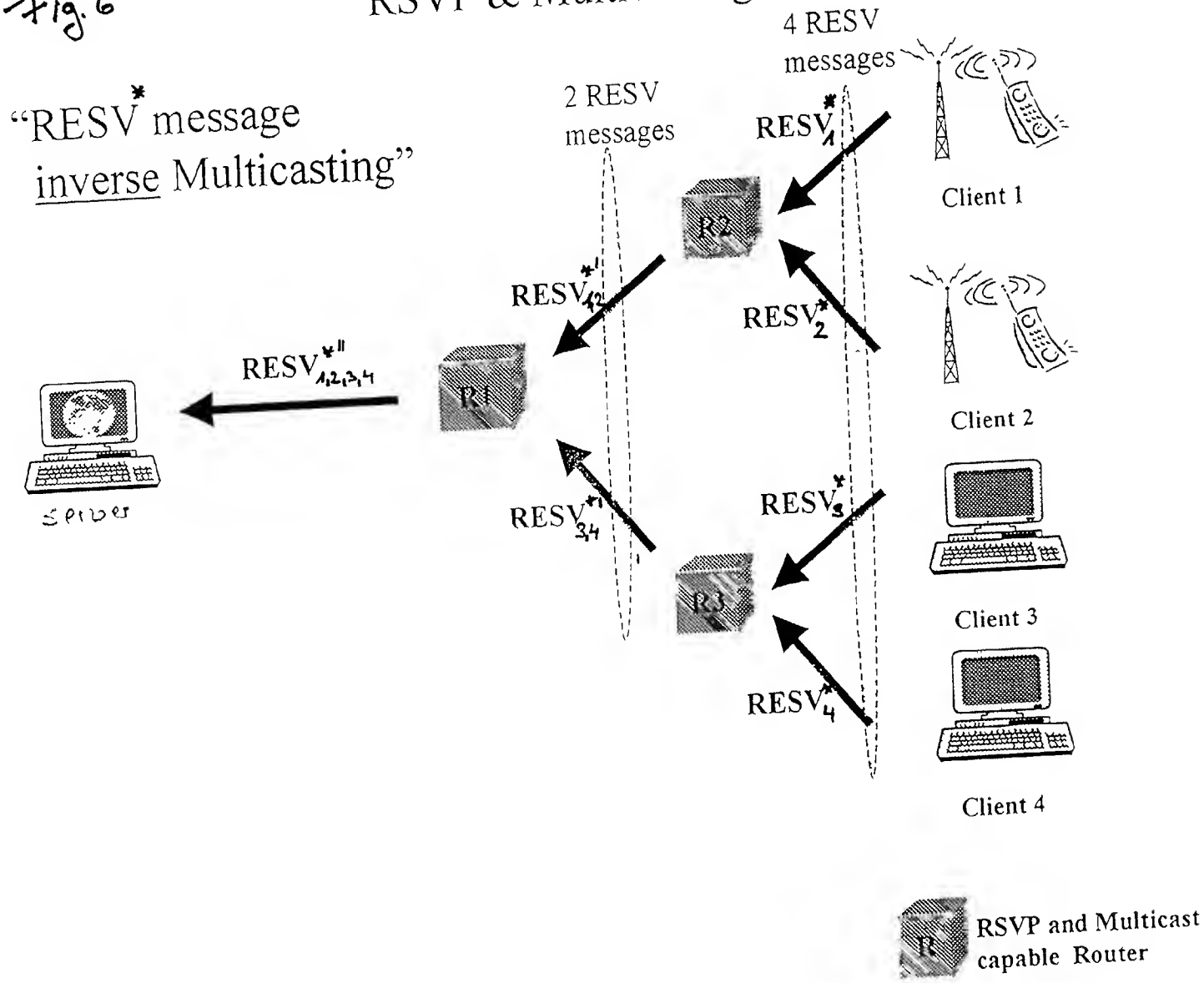


Fig. 7

Pre-Reservation Mechanism